



12EM6

DIODE-POWER TETRODE

9-PIN MINIATURE TYPE

For use in automobile radio receivers operating
directly from 6-cell storage-battery systems

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage range (DC). 10 to 15.9 volts

This voltage range is on an absolute basis. For longest life, it is recommended that the heater be operated within the voltage range of 11 to 14 volts.

Current (Approx.) at 12.6 volts . . . 0.5 amp

Characteristics, Class A₁ Amplifier (Tetrode Unit):

Heater Voltage. 12.6 volts

Plate Voltage. 12.6 volts

Grid-No.2 Voltage. 12.6 volts

Grid-No.1 Resistor (Bypassed). 2.2 megohms

Plate Resistance (Approx.). 4000 ohms

Transconductance. 5000 μ mhos

Plate Current. 6 ma

Grid-No.2 Current. 1 ma

Mechanical:

Operating Position. Any

Maximum Overall Length. 2-5/8"

Maximum Seated Length. 2-3/8"

Length, Base Seat to Bulb Top (Excluding tip). . . 2" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

Dimensional Outline. See General Section

Bulb. T6-1/2

Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW. 9HV

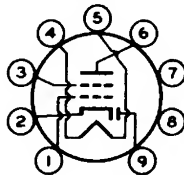
Pin 1 - Tetrode
Grid No.1

Pin 2 - Cathode

Pin 3 - Tetrode
Grid No.2

Pin 4 - Heater

Pin 5 - Heater



Pin 6 - Tetrode Plate

Pin 7 - Internal Connection—
Do Not Use

Pin 8 - Same as Pin 7

Pin 9 - Diode Plate

TETRODE UNIT — AUDIO DRIVER

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. 30 max. volts

GRID-No.2 (SCREEN-GRID) VOLTAGE. 30 max. volts

PLATE DISSIPATION. 0.5 max. watt

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . . 30 max. volts

Heater positive with respect to cathode . . 30 max. volts

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DIODE-POWER TETRODE

Typical Operation:

Heater Voltage.	12.6	volts
Plate Voltage	12.6	volts
Grid-No.2 Voltage	12.6	volts
Grid-No.1 Voltage	<i>Obtained by rectification through 15-megohm resistor</i>	

Peak AF Grid-No.1 Voltage:

From 0.2-megohm signal source	1.4	volts
Zero-Signal Plate Current	6	ma
Max.-Signal Plate Current	2.5	ma
Load Resistance	3500	ohms
Total Harmonic Distortion	10	%
Max.-Signal Power Output.	10	mw

Maximum Circuit Values:

Grid-No.1-Circuit Resistance.	15 max.	megohms
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DIODE UNIT**Maximum Ratings, Design-Center Values:**

PLATE CURRENT	10 max.	ma
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Characteristics:

Heater Voltage.	12.6	volts
Plate Current for plate volts = 10.	1	ma